What is claimed is:

[Claim 1]   A method in an ingress port-adapter (IA) for dynamically evaluating the relative level of occupancy of the individual switching planes of a parallel packet switch, wherein a request is transmitted from said IA to one of said individual switching planes each time a data packet is received in said IA, said data packet being temporarily stored in said IA, and wherein an acknowledgment is returned from said one of said individual switching planes to said IA when said data packet can be processed, said method comprising the steps of:

computing, for each individual plane, the number of data packets waiting to be processed;
determining the range of data packets waiting to be processed among all individual switching planes; and,
comparing said range of data packets waiting to be processed with at least one predetermined threshold,
signaling each at least one predetermined threshold exceeded.

[Claim 2]   The method according to claim 1 wherein said computing step is automatically performed by an up/down counter incremented with each said transmitted request and decremented with each said returned acknowledgment.

[Claim 3]   The method according to claim 1 wherein said signaling step further comprises the step of: determining which at least one switching plane is responsible for said at least one predetermined threshold exceeded.

[Claim 4]   The method according to claim 3 wherein said signaling step and said determining steps are used for triggering the further step of: adapting load balancing over said switching planes.

[Claim 5]   The method according to claim 4 wherein said adapting step consists in reducing load balancing over said at least one determined switching plane.

[Claim 6]   The method according to claim 4 wherein said adapting step consists in skipping said at least one determined switching plane by said load balancing.

[Claim 7]   The method according to claim 1 wherein said signaling step execution is contingent to a minimum duration of a threshold crossing.

[Claim 8]   The method according to claim 1 wherein said signaling step is used to raise an alert signal depending on which said at least one threshold is exceeded.

[Claim 9]   The method according to claim 1 wherein said predetermined threshold is an absolute number of packets waiting to be processed.

[Claim 10]   The method according to claim 1 wherein said predetermined threshold is a relative number of packets waiting to be processed.

[Claim 11]   The method according to claim 1 wherein the level of occupancy of the switching resources are evaluated beyond said switching planes down to any identifiable physical switching resource and load balancing performed accordingly.

[Claim 12]   The method according to claim 11 wherein said identifiable physical switching resource is an individual serial link.

[Claim 13]   An apparatus comprising means adapted for carrying out each step of the method according to claim 1.

[Claim 14]   A computer-like readable medium comprising instructions for carrying out each step of the method according to claim 1.